NASA/ NOAA/ DOE Collaboration
For Utilization of Unmanned Aerospace Vehicles for Climate Change and Global Weather Research

This limited invitation is extended to you as a key member of the U.S. Earth System Science community. As you all know, in July 2003, representatives from 34 nations and 22 multilateral agencies participated in the first Earth Observation Summit that resulted in a declaration that emphasized the need to significantly advance the collective ability for Earth Observation. The President of the United States challenged America's Earth Science community to take a leadership role in the development of an international Earth Observation System. In response to this challenge, NOAA, NASA and DOE have partnered to initiate a broad-based Collaborative to address the challenges of sub-orbital observations, and to address the potential role that Unmanned Aerial Vehicle (UAV)-based observing systems could have as an integrated piece of the global observing network.

On behalf of NASA, NOAA, and DOE, the California Space Institute (CalSpace) and Scripps Institution of Oceanography (SIO) are hosting a group of 40-45 national scientists to develop science priorities for transformational UAV suborbital observing systems capabilities that could support this important national program.

The collaboration intends to form an inclusive alliance of United States Earth Science and Public Policy leaders to work with it. Our first Working Group meeting, assembling key Government and Science stakeholders will be held on August 3rd and 4th in San Diego, California, at the Scripps Institution of Oceanography. Your participation and contribution would be extremely valuable to the collaborative effort. The team will come together in San Diego, California to:

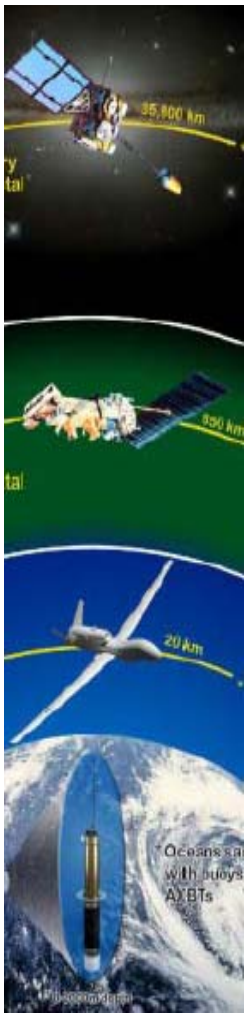
- Formulate science objectives for a collaboration aimed at improved integrated global observations for climate, weather, and ecological change that proposes using UAVs as observing platforms for new in-situ and remote sensing measurements. These measurements in conjunction with satellite and surface observations will be combined with models that simulate links and feedback mechanisms between Earth system processes.
- Help create near term options and future plans to support this International Earth Observation initiative to provide sound U.S. science, research and technology leadership.

Additional information regarding the workshop location, logistics, presentation papers, etc. can be accessed on http://www.fsl.noaa.gov/uav_workshop/

The proposed collaboration is visionary in goals and would be international in scope.

The intent of this “grass roots” effort is to provide innovative suborbital solutions, such as UAV platforms, that can make unique contributions to our nation’s efforts to improve our understanding of climate change, nearer-term weather prediction, and ecological change by enhancing global observations of Earth systems.
Many critical federal, state and local government agencies rely on the observations, technologies, and research that NASA, NOAA and DOE provide. These include the U.S. Climate Change Science and Technology Programs, the U.S. Weather Research Program, the U.S. Global Change Research Program, interagency disaster mitigation efforts, Federal natural resources management initiatives, homeland security and infrastructure management.

Of the various vantage points from which the Earth can be observed and monitored, the airborne and/or suborbital has been constrained by limitations of aerospace and automation technology to fully contribute to the integrated observations suites needed to understand Earth system processes and monitor long-term Earth system changes and improve climate and weather modeling and predictions. The advent of new communications, robotics and aeronautics technologies will enable us to better integrate the suborbital vantage point with the rest of the observing system, leading to new observations that will be widely applicable to several Earth observing objectives, from basic research and understanding of the Earth system to operational decision support systems.



Your acceptance by e-mail to billryan@ucsd.edu

Regrets only to CalSpace@ucsd.edu

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